Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-13 (Canceled)

14.   (Currently Amended) ~~The system~~ A computer based system for computing probability distribution ~~according to claim 13~~ of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring means for acquiring loan amounts of each loan customer and acquiring a plurality of bankruptcy probabilities of each said loan customer by predicting future fluctuations, and then using these values as a plurality of scenarios;

a characteristic function calculating means for calculating characteristic functions for each said scenario on the basis of said loan amounts and said bankruptcy probabilities acquired by said scenario acquiring means;

a probability distribution calculating means for calculating probability distributions for each said scenario by Fourier transform inversion of said characteristic functions calculated by said characteristic function calculating means;

an average probability distribution calculating means for calculating an average probability distribution which is the average of said probability distributions for each said scenario; and

a probability distribution output means for outputting said average probability distribution calculated by said average probability distribution calculating means,

wherein said scenario acquiring means expresses probabilities of bankruptcy of said loan customers by a function, and acquires said plurality of bankruptcy probabilities according to said function,

wherein said function expressing probabilities of said loan customers is

$$\text{Norm}\left[Y_k - \sum_{r=1}^{R} a_{kr}u_r\right]$$

where k indicates each loan customer, u_r are random variables according to an R-dimensional normal distribution, and a_{kr} are constants,

wherein Norm ( ) is a cumulative distribution function of a standard normal distribution and Y_k is a constant.

15.   (Currently Amended) ~~The system~~ A computer based system for computing probability distribution ~~according to claim 13~~ of loan losses in a financing organization having a plurality of loan customers, comprising:

a scenario acquiring means for acquiring loan amounts of each loan customer and acquiring a plurality of bankruptcy probabilities of each said loan customer by predicting future fluctuations, and then using these values as a plurality of scenarios;

a characteristic function calculating means for calculating characteristic functions for each said scenario on the basis of said loan amounts and said bankruptcy probabilities acquired by said scenario acquiring means;

a probability distribution calculating means for calculating probability distributions for each said scenario by Fourier transform inversion of said characteristic functions calculated by said characteristic function calculating means;

an average probability distribution calculating means for calculating an average probability distribution which is the average of said probability distributions for each said scenario; and

a probability distribution output means for outputting said average probability distribution calculated by said average probability distribution calculating means,

wherein said scenario acquiring means expresses probabilities of bankruptcy of said loan customers by a function, and acquires said plurality of bankruptcy probabilities according to said function,

wherein said function expressing probabilities of said loan customers is

$$\text{Norm}(Y_k - a_k u)$$

where k indicates each loan customer, u is a random variable, and a_k is a constant,

wherein Norm ( ) is a cumulative distribution function of a standard normal distribution and Y_k is a constant.

16.   (Currently Amended) A computer based system for computing probability distribution of loan losses in a financing organization having N loan customers k=1 . . . N comprising:

an input ~~unit~~ means for inputting loan amounts M_k to each said N loan customers k=1. . . N and bankruptcy probabilities p_k thereof;

a loan customer calculating ~~unit~~ means for calculating the number N of said loan customers on the basis of said loan amounts M_k and/or said bankruptcy probabilities p_k inputted by said input ~~unit~~ means;

a characteristic function calculating ~~unit~~ means for calculating a characteristic function

$$\phi(t)= \prod_{k=1}^{N} \{1+p_k(\exp(itM_k)-1)\}$$

at each t of $t=2\pi m/(2^{2n})$ (m=0, 1, 2, . . ., $2^{2n}-1$) for the number of points n of Fourier transform;

a probability distribution calculating ~~unit~~ means for calculating a probability distribution by Fourier transform inversion of said characteristic function calculated by said characteristic function calculating ~~unit~~ means, by using a fast Fourier transform technique; and

a probability distribution output ~~unit~~ means for outputting said probability distribution calculated by said probability distribution calculating ~~unit~~ means.

17.   (Currently Amended) The system for computing probability distribution according to claim 16 wherein $2^{2n}-1$ which is the greatest value of m in said characteristic function calculating ~~unit~~ means is a value not less than the sum of all loan amounts.

18.   (Currently Amended) The system for computing probability distribution according to claim 16 wherein $2^{2n}-1$ which is the greatest value of m in said characteristic function calculating ~~unit~~ means is a value not less than the minimum of values for which probability of loan losses can be regarded substantially zero in the calculation process.

19.   (Currently Amended) The system for computing probability distribution according to claim 16 further comprising a loan amount rounding ~~unit~~ <u>means</u> for rounding each said loan amount inputted through said input ~~unit~~ <u>means</u> to a number integer times of a predetermined unit, and

$2^{2n}-1$ which is the greatest value of m in said characteristic function calculating ~~unit~~ <u>means</u> being a value not less than the quotient obtained by dividing the sum or all loan amounts by said predetermined unit.

20.   (Currently Amended) The system for computing probability distribution according to claim 16 further comprising a loan amount rounding ~~unit~~ <u>means</u> for rounding each said loan amount inputted through said input unit to a number integer times of a predetermined unit, and

$2^{2n}-1$ which is the greatest value of m in said characteristic function calculating ~~unit~~ <u>means</u> being a value not less than the quotient obtained by dividing by said predetermined unit the minimum of values for which probability of loan losses can be regarded substantially zero in the calculation process.

21-22. (Canceled)